

FIG. 1

100

104

102

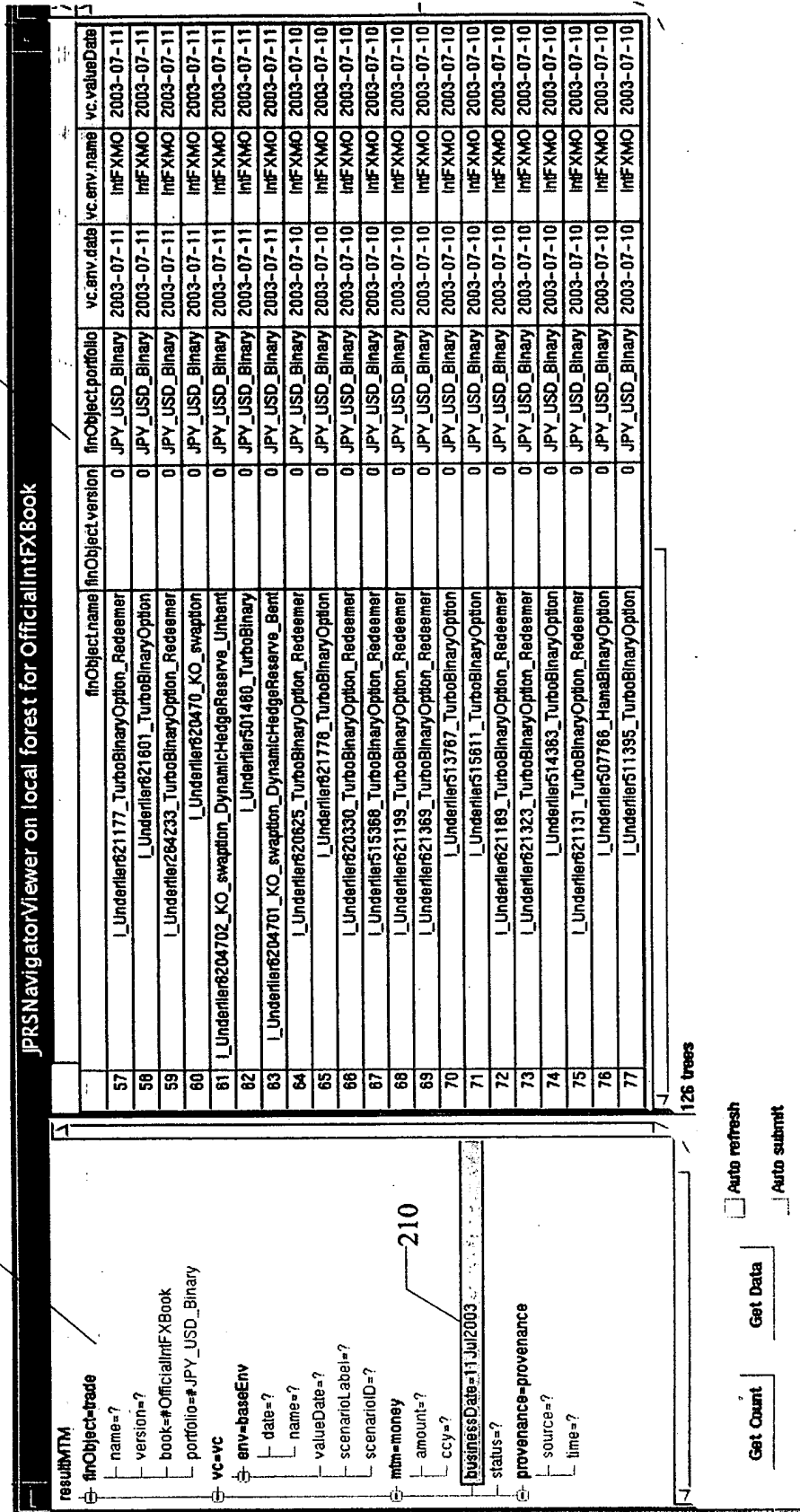


Figure 2a

200

Steps	Query Tree	Choice	No. Trees
1	?-210	resultCashflow resultMTM-212 resultPosition	11,187,650
2	resultMTM-212 finObject=? vc=? mtm=? businessDate=?-214 status=? provenance=?	2Jul2003 3Jul2003 4Jul2003 7Jul2003 8Jul2003 9Jul2003 10Jul2003 11Jul2003 14Jul2003-216	4,780,652
3	resultMTM-212 finObject=? vc=?-218 mtm=? businessDate=14Jul2003 status=? provenance=?	vc-220	522,404
4	resultMTM finObject=? vc=vc-218 env=?-222 valueDate=? scenarioLabel=? scenarioID=? mtm=? businessDate=14Jul2003 status=? provenance=?	baseEnv-224 perturbEnv regenEnv replaceEnv	522,404
5	resultMTM finObject=?-226 vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=? businessDate=14Jul2003 status=? provenance=?	trade-228	15,956

Figure 2b

Steps	Query Tree	Choice	No. Trees
6	resultMTM finObject=trade name=? version=? book=? portfolio=?-230 vc=vc env=baseEnv date=? name= valueDate=? scenarioLabel=? scenarioID=? mtm=? businessDate=14Jul2003 status=? provenance=?	I_OFFICIAL_INTFX_Fx_Fwds I_OFFICIAL_INTFX_Fx_Options I_OFFICIAL_INTFX_MultiCcy_Swap I_OFFICIAL_INTFX_SingleCcy_Swap I_OFFICIAL_INTFX_Vanilla_Turbos JPY_USD_Binary-232 JPY_USD_Binary_StepDown JPY_USD_Non_Capped_KO MultiCcy_Binary USD_JPY_Capped_Turbos_Callable	15,956
7	resultMTM finObject=trade name=? version=? book=? portfolio=JPY_USD_Binary vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=? businessDate=14Jul2003 status=? provenance=?		126

Figure 2c

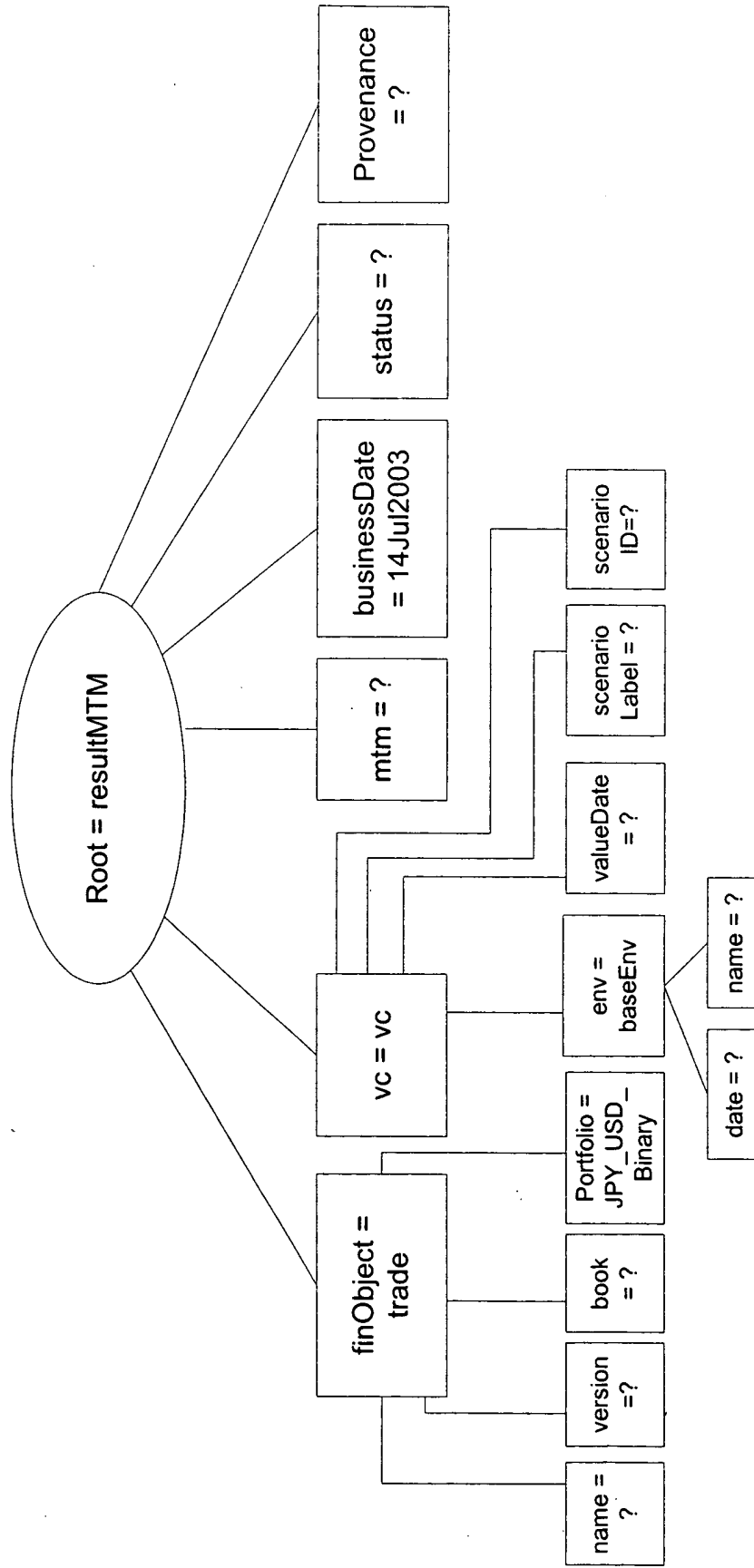


Figure 3

302	304	306	104	230	308	310	312	214	314
finObject.name	finObject.version	finObject.book	finObject.portfolio	vc.env.date	vc.env.name	vc.valueDate	businessDate	status	
I_Underlier_2435342	0	OfficialIntFXBook	JPY_USD_Binary	2003-07-11	IntFXMO	2003-07-11	2003-07-14	Present	
I_Underlier_3273872	0	OfficialIntFXBook	JPY_USD_Binary	2003-07-11	IntFXMO	2003-07-11	2003-07-14	Present	
I_Underlier_4455342	0	OfficialIntFXBook	JPY_USD_Binary	2003-07-11	IntFXMO	2003-07-11	2003-07-14	Present	
I_Underlier_5344442	0	OfficialIntFXBook	JPY_USD_Binary	2003-07-11	IntFXMO	2003-07-11	2003-07-14	Present	
I_Underlier_6744449	0	OfficialIntFXBook	JPY_USD_Binary	2003-07-11	IntFXMO	2003-07-11	2003-07-14	Present	

Figure 5

302	304	308	310	312	502	504	214	314
finObject.name	finObject.version	vc.env.date	vc.env.name	vc.valueDate	mtm.amount	mtm.ccy	businessDate	status
I_Underlier_2435342	0	2003-07-11	IntFXMO	2003-07-11	-763001.40	USD	2003-07-14	Present
I_Underlier_3273872	0	2003-07-11	IntFXMO	2003-07-11	-138797.17	USD	2003-07-14	Present
I_Underlier_4455342	0	2003-07-11	IntFXMO	2003-07-11	-529622.00	USD	2003-07-14	Present
I_Underlier_5344442	0	2003-07-11	IntFXMO	2003-07-11	0.00	USD	2003-07-14	Present
I_Underlier_6744449	0	2003-07-11	IntFXMO	2003-07-11	-290438.07	USD	2003-07-14	Present

Figure 4

Steps	Query Tree	Choice	No. Trees
8	<div>202</div> <div>204</div> <pre> resultMTM finObject=trade name=? version=? book=? portfolio=JPY_USD_Binary vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=-402 businessDate=14Jul2003 status=? provenance=? </pre>	<div>206</div> <p>money-404</p>	<div>208</div> <p>126</p>
9	<pre> resultMTM finObject=trade name=? version=? book=? portfolio=JPY_USD_Binary vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=money-404 amount=?-502 ccy=?-504 businessDate=14Jul2003 status=? provenance=? </pre> <div>402</div>		<p>126</p>

Figure 6

Steps	Query Tree	Choice	No. Trees
10	resultMTM finObject=trade name=? version=? book=? portfolio=JPY_USD_Binary vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=money amount=? ccy=? businessDate=14Jul2003 status=? provenance=-602	provenance-604	126
11	resultMTM finObject=trade name=? version=? book=? portfolio=JPY_USD_Binary vc=vc env=baseEnv date=? name=? valueDate=? scenarioLabel=? scenarioID=? mtm=money amount=? ccy=? businessDate=14Jul2003 status=? provenance=provenance source=? time=?		126

Figure 7

302	308	310	502	504	214	314	702	704
finObject.name	vc.env.date	vc.env.name	mtm.amount	mtm.ccy	businessDate	status	provenance.source	provenance.time
I_Underlier_2435342	2003-07-11	IntFXMO	-763001.40	USD	2003-07-14	Present	hpc_UpOnlyRun	14 Jul 2003 21:20:41
I_Underlier_3273872	2003-07-11	IntFXMO	-138797.17	USD	2003-07-14	Present	hpc_UpOnlyRun	14 Jul 2003 21:20:41
I_Underlier_4455342	2003-07-11	IntFXMO	-529622.00	USD	2003-07-14	Present	hpc_UpOnlyRun	14 Jul 2003 21:20:41
I_Underlier_5344442	2003-07-11	IntFXMO	0.00	USD	2003-07-14	Present	hpc_UpOnlyRun	15 Jul 2003 3:22:49
I_Underlier_6744449	2003-07-11	IntFXMO	-290438.07	USD	2003-07-14	Present	hpc_UpOnlyRun	15 Jul 2003 3:22:49

216

Figure 8

Tree 1	Tree 2
802-perturbation = tweak-804 806-curve = ? 808-point = ? 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "UP" 818-amount = "1"	802-perturbation = tweak-804 806-curve = irCurve-820 823-ccy = "USD" 808-point = curvePoint-828 830-maturity = "1Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "UP" 818-amount = "1"
Tree 3	Tree 4
802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy = "USD" 826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = ? 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "UP" 818amount = "1"	802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy = "USD" 826-index = ? 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = ? 810a-tweakSpec = _

Figure 9

Tree 1	Tree 2	Result
802-perturbation=tweak-804 806-curve=irSwaption Vol.-824 822-ccy="AUD" 826-index="SWAP" 808-point =irVolPoint-832 830-maturity="1Y" 834-tenor="5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	802-perturbation=tweak-804 806-curve=? 808-point =irVolPoint-832 830-maturity="1Y" 834-tenor="5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	802-perturbation=tweak-804 806-curve=irSwaption Vol.-824 822-ccy="AUD" 826-index="SWAP" 808-point =irVolPoint-832 830-maturity="1Y" 834-tenor="5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"

Figure 10

Tree 1	Tree 2	Result
802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy= "AUD" 826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = "5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	802-perturbation = tweak-804 806-curve = ____ 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = "5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	802-perturbation = tweak 806-curve = ____ 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = "5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"

Figure 11

Tree 1	Tree 2	Result
802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy = "AUD" 826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = "5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec 816-direction = "Up" 818-amount = "1"	802-perturbation = tweak-804 806-curve = ? 808-point = ____ 810a-tweakSpec = ?	802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy = "AUD" 826-index = "SWAP" 808-point = ____ 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"

Figure 12

Tree 1	Tree 2	Result
802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy= "AUD" 826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y" 834-tenor = "5Y" 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec 816-direction = "Up" 818-amount = "1"	802-perturbation = tweak-804 806-curve = ? 808-point = ? 810a-tweakSpec = ____	802-perturbation = tweak-804 806-curve = ? 808-point = ? 810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"

Figure 13

Tree 1	Tree 2	Tree 3
802-perturbation = tweak-804 806-curve = irCurve-820 823-ccy= "USD"	802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy = "USD"	802-perturbation = tweak-804 806-curve = irSwaptionVol-824 822-ccy= "AUD"
808-point = curvePoint-828 830-maturity = "1Y"	826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y"	826-index = "SWAP" 808-point = irVolPoint-832 830-maturity = "1Y"
810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	834-tenor = "2Y"	834-tenor = "5Y"
	810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"	810a-tweakSpec = tweakSpec-810b 812-spec = perturbationSpec-814 816-direction = "Up" 818-amount = "1"

Figure 14

```

      1402
     /
resultPosition / 1404 1408
               /
               finObject=trade
                 name=?-1410
218- vc=vc-220
    222- env=perturbEnv-1412
        802- perturbation=tweak-804
            806- curve=irCurve-820
                ccy=?-823
            808- point=curvePoint-828
                maturity=?-830
            810a- tweakSpec=tweakSpec-810b
                812- spec=perturbationSpec-814
                    direction=?-816
                    amount=?-818

1406- delta=money-1414
1416- amount=?

```

Figure 15

```

resultPosition
  finObject=trade
  1410- name="Trade1"
  vc=vc
    env=perturbEnv
      perturbation=tweak
        curve=irCurve
          823- ccy="EUR"-1504
          point=curvePoint-828
            maturity=?-830
          tweakSpec=tweakSpec-810b
            spec=perturbationSpec-814
              816- direction="UP"-1506
              818- amount=?

delta=money
  amount=?

```

Figure 16

```
resultPosition
  finObject=trade
  1410—name=_
  vc=vc
    env=perturbEnv
      perturbation=tweak
        curve=irCurve
          ccy=_-823
            808—point=?
              tweakSpec=tweakSpec
                spec=perturbationSpec-814
                  816—direction=_
                    818—amount=?
1406—delta=money-1414
  1416—amount=?
```

Figure 17

```
resultPosition
  finObject=trade
  1410—name="Trade1"
  vc=vc
    env=perturbEnv
      perturbation=tweak
        curve=irCurve
          823—ccy="EUR"-1504
            point=?-1702
              tweakSpec=tweakSpec
                spec=perturbationSpec
                  816—direction="UP"-1506
                    amount=?
delta=money
  amount=?
```


Figure 18

Query Tree 1: resultPosition 1502
finObject=trade
1410—name="Trade1"
vc=vc
env=perturbEnv
perturbation=tweak
curve=irCurve
823—ccy="USD"-1802
point=?-1702
tweakSpec=tweakSpec
spec=perturbationSpec
816—direction="UP"-1506
amount=?

delta=money
amount=?

Query Tree 2: resultPosition 1502
finObject=trade
1410—name="Trade1"
vc=vc
env=perturbEnv
perturbation=tweak
curve=irCurve
823—ccy="USD"-1802
point=?-1702
tweakSpec=tweakSpec
spec=perturbationSpec
816—direction="DN"-1804
amount=?

delta=money
amount=?

Figure 19

```
resultPosition
  finObject=trade
    name=?
  vc=vc
    env=perturbEnv
      perturbation=tweak
        806— curve=_
          point=?
            tweakSpec=tweakSpec
              spec=perturbationSpec
                direction=_
                  amount=?
      delta=money
        amount=?
```

Figure 20

```
resultPosition
  finObject=trade
    name=?
  vc=vc
    env=perturbEnv
      perturbation=tweak
        806— curve=irSwaptionVol-824
          822— ccy="AUD"-2002
            826— index="SWAP"-2004
              point=?
                tweakSpec=tweakSpec
                  spec=perturbationSpec-814
                    816— direction="UP"-1506
                      amount=?
      delta=money
        amount=?
```

Figure 21

```
resultPosition
  finObject=trade
  1410—name=_
  vc=vc
    env=perturbEnv
    802—perturbation=tweak-804
      806—curve=_
      808—point=_
        tweakSpec=tweakSpec
        spec=perturbationSpec
        816—direction=_
        amount=?

delta=money
amount=?
```

Figure 22

```
resultPosition
  finObject=trade
  1410—name="Trade2"
  vc=vc
    env=perturbEnv
    perturbation=tweak
      806—curve=irCurve-820
      823—ccy="EUR"-1504
      808—point=curvePoint-828
      830—maturity="3Y"-2202
      tweakSpec=tweakSpec
      spec=perturbationSpec
      816—direction="UP"-1506
      amount=?

delta=money
amount=?
```

Figure 23

```
resultPosition
  finObject=trade
    name=_
  vc=vc
    env=perturbEnv
      perturbation=tweak
        curve=irCurve
          ccy=_
            tweakSpec=tweakSpec
              spec=perturbationSpec
                direction=_
      delta=money
```

Figure 24

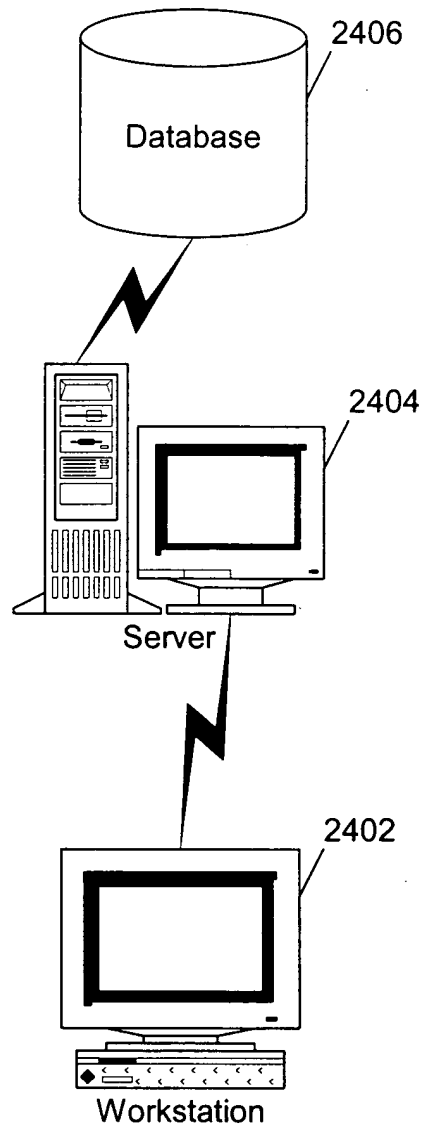


Figure 25

